

EXECUTIVE SUMMARY

Proposal

The Issaquah School District (ISD) proposes to construct a new middle school (serving grades 6 through 8) on property located at the southeast corner of NW Talus Drive / Falcon Way NW (Talus Parcel 17-B), in the Talus community of Issaquah. The school is planned for an enrollment capacity of 850 students with about 75 faculty and staff. However, to ensure a conservative analysis, an enrollment of up to 900 students was evaluated to account for possible unanticipated fluctuations. The proposed school facilities include an athletic field, commons, and a gymnasium.

The project proposes to provide three access driveways. The main access driveway, proposed on NW Talus Drive, would serve the family-vehicle load/unload area as well as on-site staff and visitor parking. After extensive review of a range of access options, the project proposes traffic signal control at the main access driveway on NW Talus Drive. A separate access-controlled emergency-access/service driveway is also proposed on NW Talus Drive. A school-bus load/unload area is planned along the west side of the site with an access driveway on Falcon Way NW. On-site parking is planned to include 122 parking spaces (99 spaces within a garage, and 23 surface parking spaces), plus an additional 40 stalls in load/unload areas that would be available during off-peak hours, for a total of 162 parking stalls. The project would also construct a trail along the south side of the site that would provide connection between NW Talus Drive and Falcon Way NW.

Traffic Generation

With 900 students, the school is forecast to generate 1,920 vehicle trips per day (960 in, 960 out), with 630 occurring in the morning peak hour, 315 in the afternoon peak hour, and 153 in the commuter PM peak hour.

Traffic Operations, Queuing, & Travel Times

With the proposed signalized access, the main driveway intersection in NW Talus Drive is projected to operate at LOS C during the morning peak hour, and LOS A during the afternoon and commuter PM peak hours. As part of the project, signal timing optimization is recommended for the NW Talus Drive/SR 900 intersection. With optimization, that intersection is forecast to operate at LOS C during the morning peak hour and LOS B during the afternoon and commuter PM peak hours. The stop-controlled NW Talus Drive/Falcon Way NW intersection is forecast to operate at LOS A overall with all movements operating at LOS C or better during all peak hours with the project.

Analyses and simulations of circulation and queuing conditions were prepared. Peak off-site queuing conditions for schools tend to occur in the morning during arrival just prior to school start times. The analyses and simulations of the signalized access indicate the queue of westbound left turning vehicles into the site can be accommodated by the proposed storage lane. Peak on-site queuing conditions for schools typically occur in the afternoon just prior to dismissal. The proposed on-site storage capacity would accommodate more than 125 queued/parked vehicles, which is expected to be adequate for typical afternoon conditions.

The school project is expected to modestly increase travel times for background traffic using NW Talus Drive. The increases are expected because of the proposed new school zone (20 miles per hour) speed limit during morning arrival and afternoon dismissal periods, added delay from the new traffic signal at the main school access, and added delay from new school trips at the NW Talus Drive/SR 900 intersec-

tion. The largest travel time increase is expected in the eastbound direction during the morning peak hour of about a half-minute (28 seconds) is forecast to be added to the average travel time through the corridor. For eastbound travel during the other peak hours, and westbound travel during all peak hours, the project is expected to add between 5 and 22 seconds to average travel time through the corridor.

Traffic Safety

Historical collisions reported in the study area do not reflect unusual safety patterns. The project would meet the City's minimum sight distance requirements.

Although the traffic signal has been incorporated into the proposal to address traffic operational and queuing needs, its presence could also have some effect in slowing down traffic through the corridor. The introduction of a new signalized intersection at the main site access driveway is expected to reduce the likelihood of angle collisions, which can be more severe in terms of injury and property damage. However, signalization can result in increased numbers of less-severe rear-end collisions.

Minimum spacing requirements for intersections and driveways are established in Section A of the City's street design standards. Because NW Talus Drive is a Collector Arterial, the minimum spacing for driveways is 600 feet. The steep grades at and adjacent to the site, combined with the horizontal curvature of the NW Talus Drive frontage and proximity to SR 900, severely constrain the feasible locations for site access. The proposed main driveway is located at approximately the same location as an existing temporary site access, about 200 feet east of Falcon Way NW. Because the proposed driveway spacing is less than 600 feet, a deviation from the City standard will be required. The deviation would meet safety and mobility objectives reflected in the three City criteria required to support a deviation request.

Transit & Non-Motorized Facilities and Service

The project is not expected to result in adverse impacts to transit, bicycle or pedestrian facilities.

Typical School-Day and Event Parking

Parking analysis completed in a separate report estimates typical school-day demand of 81 vehicles, which could be accommodated by the planned on-site supply of 122 spaces. On typical school days, an average of 41 spaces are expected to remain unused and would be available for occasional daytime events or for family drivers awaiting afternoon dismissal; during midday, the 40 spaces in the student loading area would also be available, for a total of 81 spaces. Events are expected to occur periodically at the school and would include scholastic events, performances, athletics, and business meetings. Parking demand would vary based on the type of event and attendance; most types of events could be accommodated by the proposed parking supply. For all events anticipated to have 300 or more attendees, it is recommended that the District and School implement parking management measures to ensure that parking overspill does not occur on nearby streets.

Construction

Project construction would generate truck trips, as well as construction employee commute trips. Construction truck traffic is expected to average between 3 to 4 trips per hour during a typical eight-hour construction work day, over a 21-week period. Although the volume of truck traffic would be noticeable to nearby residents, it is not expected to result in significant impacts to traffic operations in the site vicinity.

Mitigation and Recommendations

Based on the extensive analysis prepared for the proposed Middle School #6 project, the following physical measures have been incorporated into the proposal.

- A. Traffic Signal at Main Driveway
- B. Signage/Pavement Marking at NW Talus Drive/Falcon Way NW
- C. NW Talus Drive/SR 900 Signal Re-optimization
- D. School-Zone Speed Limit
- E. Sight-Triangle Maintenance

In addition to the physical measures listed above that have been incorporated into the project proposal, the following operational measures are recommended to minimize the potential traffic-related impacts of the proposed Middle School #6 project.

- F. Construction Management Plan (CMP)
- G. Transportation Management Plan (TMP)
- H. School-Event Management Plan
- I. Annual Monitoring of Queuing and Event Parking

If neighbor complaints and/or follow-on monitoring by ISD or school staff indicates the above measures are not adequately addressing concerns, the school could consider the following additional measures:

- J. Adjust Bus Schedules
- K. Adjust School Hours
- L. Increase School Bus Service
- M. Additional Capital Improvements and/or Management Measures